

For Reference

NOT TO BE TAKEN FROM THIS ROOM

For Reference

NOT TO BE TAKEN FROM THIS ROOM

Ex LIBRIS
UNIVERSITATIS
ALBERTAE NSIS



THE UNIVERSITY OF ALBERTA
SELF PERCEPTION OF ORTHOPEDICALLY HANDICAPPED
CHILDREN AND NORMAL CHILDREN

by



MARLENE MAE SORENSEN

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

SPRING, 1970

1970
124

UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled, "Self Perception of Orthopedically Handicapped Children and Normal Children", submitted by Marlene Mae Sorensen in partial fulfilment of the requirements for the degree of Master of Education.

ABSTRACT

This study was designed to compare the self perception of orthopedically handicapped children and non-orthopedically handicapped children. It was hypothesized that the self perception of orthopedically handicapped children is less positive than that of non-orthopedically handicapped children. Four additional hypotheses, using the variables of sex and age, compared the subjects' self perception.

A sample of 30 orthopedically handicapped children from two school hospitals and another sample of 17 non-orthopedically handicapped children from a regular school in the age range of 7 to 10 years were employed.

A questionnaire of 53 items, subdivided into 10 categories and designed to measure self perception, was prepared by the researcher. Each child was interviewed by the researcher and the interview was taped. Two judges independently rated the interviews on a five-point rating scale. The results were analyzed with the t-test and the Mann Whitney test.

There was only limited support for the underlying hypothesis that the self perception of orthopedically handicapped children is less positive than that of non-orthopedically handicapped children. Some items from the questionnaire produced statistically significant differences in self perception between the groups, however, those may have been experimental artifacts. A few of the questionnaire items produced

statistically significant differences in self perception between the groups when the subjects were matched according to age and sex. Therefore, although differences in self perception between individuals may exist, this thesis does not provide evidence to indicate the existence of such differences between the groups under investigation.

ACKNOWLEDGMENTS

The writer wishes to acknowledge gratefully the assistance of members of her committee in the preparation of this thesis.

Special thanks are due to the committee chairman, Dr. D. R. Cameron, for his encouragement; to Dr. D. C. Fair and Dr. P. P. Rempel for their helpful comments and constructive suggestions; to the principals of the co-operating schools, Mr. J. W. Briggs, Mr. A. Karvonen, and Mrs. M. I. Piercey; to the children who were ever encouraging; to D. Precht for his assistance in statistical analysis; to my husband, Jim, to my Mother, and to my son, Dana, for their understanding.

CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1
Statement of the Problem	1
Hypotheses	3
Importance of the Study	4
Definitions	5
Procedure	7
Pilot Study	7
Present Study	7
Selection of the subjects	7
The Interview	9
The Instrument	9
The Judges	10
Limitations of the Study	11
II. SOME RELATED LITERATURE	12
Attitudes Toward the Orthopedically Handicapped	12
Attitudes Toward the Self	14
Comparisons of Physically Handicapped and Non-Physically Handicapped	15
Parental Attitudes	16
Further Remarks	17
III. PRESENTATION OF THE DATA	19
Hypothesis 1	19
Hypothesis 2	22

	vii
CHAPTER	PAGE
Hypothesis 3	22
Hypothesis 4	24
Hypothesis 5	24
IV. INTERPRETATION OF THE DATA	26
Differences Between Orthopedically Handi- capped Children and Normal Children. .	26
Differences Between Female Orthopedically Handicapped Children and Female Normal Children	31
Differences Between Female Orthopedically Handicapped Children and Female Normal Children Matched According to Age Groups	32
Differences Between Male Orthopedically Handicapped Children and Male Normal Children	33
Differences Between Male Orthopedically Handicapped Children and Male Normal Children Matched According to Age Groups	34
Items Which Produced No Significant Differences Between the Orthopedically Handicapped Children and the Normal Children	35
V. SUMMARY AND IMPLICATIONS	37
Review of the Study	37

	viii
CHAPTER	PAGE
Results of the Study	37
General Results	38
Research Recommendations	39
Closing Remarks	43
SELECTED REFERENCES	44
APPENDIXES	47
Appendix A. Introduction for the Interview	49
Appendix B. Percentages of Boys and Girls in Main Population who Mentioned Various Categories in Reporting "What I Like About Myself"	51
Appendix C. Percentages of Boys and Girls in Main Population who Mentioned Various Categories in Reporting "What I Dislike About Myself"	53
Appendix D. The Instrument	55
Appendix E. The Items in Each Category	58
Appendix F. Summary of Comparisons of Means of Items on Self Perception for Orthopedically Handicapped Children and for Normal Children. .	60
Appendix G. Summary of Comparisons of	

Means of Categories on Self	
Perception for Orthopedically	
Handicapped Children and for	
Normal Children	64

LIST OF TABLES

TABLE	PAGE
1. Distribution of Orthopedically Handicapped Subjects and Normal Subjects by Age and by Sex	8
2. List of Items Measuring Self Perception which Differentiated at Statistically Significant Levels Between Orthopedically Handicapped Children and Normal Children	20
3. List of Categories Measuring Self Perception Which Differentiated at Statistically Sig- nificant Levels Between Orthopedically Handicapped Children and Normal Children . .	22
4. Comparison of <u>U</u> Scores of Female Orthopedically Handicapped Children and Female Normal Children	23
5. Comparison of <u>U</u> Scores of Female Orthopedically Handicapped Children and Female Normal Children by Age Groups	23
6. Comparison of <u>U</u> Scores of Male Orthopedically Handicapped Children and Male Normal Children	24
7. Comparison of <u>U</u> Scores of Male Orthopedically Handicapped Children and Male Normal Children by Age Groups	25

CHAPTER I

INTRODUCTION

Statement of the Problem

Deform'd, unfinish'd, sent before my time
Into this breathing world, scarce half made up,
And that so lamely and unfashionable
That dogs bark at me as I halt by them;
(Shakespeare, Richard III)

Human physique is generally believed to influence a person's behavior by way of the many phenomenal properties it has for him and his associates, and by way of its greater or lesser efficiency as the instrument with which he attempts to carry out intended actions. Variations in physical appearance are considered important causal variables within the total context of factors which determine behavior and personality. With this in mind, the researcher chose to examine self perception of orthopedically handicapped children.

A voluminous body of literature deals with orthopedically handicapped groups of differing etiologies. At present, there seems to be no good evidence that cause of crippling is related in any simple way to self perception in the crippled child. That is, no matter whether the crippling was inherited, or due to accident or disease, the effects on the self perception are not known to be significant. The major factors, as they influence the individual, seem to be: (a) the degree to which crippling, after correction, interferes with any pre-existing vocational aims; (b) the attitude toward the crippling prevalent among the child's immediate family and

close associates; (c) the attitude and overt reactions of the general public; (d) the age at onset of the crippling; and (e) the personality of the crippled child (Goodenough, 1956).

A young child lacking extensive experience of a normal life, is often less rebellious and unhappy over his limitations than an older child, who cannot evade a keener realization of his loss due to his maturity and awareness of circumstances around him.

Goodenough says that the handicapped child is usually found to be somewhat less well adjusted and less emotionally stable than the normal child. The indications are that much of the observed difference is due to the unfavorable environmental conditions. The unfavorable conditions may be due to the family, relatives, friends, or instructors, who are in contact with the child.

Another point of view about physical disabilities is advanced by Meyerson (1963). Meyerson, a close associate of Beatrice Wright, Roger G. Barker, and Tamara Dembo, has assimilated some of their ideas in his theoretical approach to physical disabilities. Somatopsychology is the study of some of the relationships that bind physique and behavior. Judgments seem to be made of people in terms of their physiques and evaluations of the physique seem to be made of people in terms of behavior. Thus, it is not easy to disentangle the threads of cause-reaction-effect in a person's behavior because there seem to be so many exceptions.

A disability is seen as an impairment having an objective or medical aspect, while a handicap is seen as an impairment in a particular kind of social and psychological behavior (Hamilton, 1950). This is a useful distinction. It makes explicit the common observation that children with identical physical impairments may have behavior differences rather than physical disability differences. Variations of the individual's behavior are relative to the expectations of the culture in which the person lives, the tasks that are required of him, and the meaning the person himself and others may assign to the variation.

It is evident that social expectations which have the force of standards will influence behavior. A person who has a socially approved physique will be treated differently and will be expected to behave differently from a person whose physique deviates from the social ideal. Obviously, therefore, the self image of the person will also be affected. In large measure the self is created by social interaction with others. No person can develop a wholesome personality if he encounters only derogatory attitudes.

Hypotheses

Goodenough (1956) in her book Exceptional Children feels that the handicapped child is usually less well adjusted and less emotionally stable than the normal child, and Meyerson (1963) feels that the less socially approved physiques affect the self image. From the viewpoints of Goodenough and

Meyerson, it was decided to test a main hypothesis.

First hypothesis. The self perception of the orthopedically handicapped child is less positive than the self perception of the normal child.

It is reasonable to assume that sex and maturity are variables that affect an individual's self perception. Therefore, the investigator decided to test the four following hypotheses:

Second hypothesis. The self perception of the female orthopedically handicapped child is less positive than the self perception of the female normal child.

Third hypothesis. The self perception of the female orthopedically handicapped child is significantly different from the self perception of the female normal child when the subjects are matched according to age groups.

Fourth hypothesis. The self perception of the male orthopedically handicapped child is less positive than the self perception of the male normal child.

Fifth hypothesis. The self perception of the male orthopedically handicapped child is significantly different from the self perception of the male normal child when the subjects are matched according to age groups.

Importance of the Study

During the last two decades there has been considerable development of facilities in special education. The orthopedically handicapped children are among the children to

receive special education.

Although this thesis did not attempt to evaluate the programs in use in the school-hospitals, it was considered that the results of the study would be related to the specialist services offered to the children. Thus, the study is important for the following reasons: (a) to discover areas where self perception of orthopedically handicapped children is poor; (b) to give an idea where professional personnel can help to develop a healthy self perception in the children; (c) to help the child to think about himself; (d) to provide guidelines for the child's parents; and (e) to benefit the institutions in a report of their children. Generally, it was intended that the results of this study should assist the people who work with orthopedically handicapped children to have a better understanding of the self perception of the children.

Definitions

Orthopedically handicapped. For the purpose of this study the White House Conference definition for orthopedic disabilities was used.

The crippled child, in the orthopedic sense, is a child that has a defect which causes a deformity or an interference with normal functioning of bones, muscles, or joints. His condition may be congenital, or it may be due to diseases or accident. It may be aggravated by disease, neglect, or by ignorance (Pitner, Eisenson, & Stanton, 1941, p. 262).

Since the focus of the thesis was orthopedic handicapped children, those children with sensory or central nervous system disorders were excluded.

Normal child. For the purposes of the present study a normal child is one who is free of significant physiological and mental defects. This child will also be referred to as a non-orthopedically handicapped child.

Self perception. For the present study the phenomenological frame of reference about behavior was used. This frame of reference is sometimes referred to as the perceptual or personal point of view. By phenomenal self is meant the individual's own unique organisation of ways of regarding himself and the world in which he lives; it is the Gestalt of his concepts of the self. The self is the personal organization which the individual refers to as "I" or "me" (Meyerson, 1963; Combs & Snygg, 1959).

School hospital. A school hospital is an institution where children receive a regular education as well as medically prescribed therapy for their disabilities.

Briggs (1966) has given a description of the method of instruction in the Glenrose School Hospital of which he is principal and from which some subjects for the present study were drawn. Each child's program, according to Briggs, is individually tailored to fit his needs, academically and therapeutically. Peter (1965) would refer to the aspect of individuality in programs as "prescriptive teaching". The children are usually long term patients so they attend regular classroom instruction.

Some orthopedically handicapped children for the present study were selected from the Red Cross School Hospital

in Calgary, (now the Alberta Hospital for Children), which is an active treatment hospital that includes surgery. Therefore, most of the children are not long term patients. Various programs are available for the children. Instruction is provided wherever possible in a regular classroom setting; some children receive individual instruction at their bedside; others take advantage of correspondence courses.

PROCEDURE

Pilot Study

A pilot study was conducted for several reasons: (a) to determine the effectiveness of the questionnaire instrument as prepared by the researcher for this study; (b) to check the researcher's ability to administer the questionnaire; and (c) to determine the nature of the reaction of the children to the interview situation. All interviews were conducted by the present writer.

The instrument was administered to a small group of orthopedically handicapped children in one school hospital. All subjects met the definition of orthopedically handicapped as defined in the present study. The interviews were taped. Two independent judges rated each interview and then discussed the instrument with the writer. As a result of the discussion, certain recommendations, as to how the instrument could be modified and thus improved, were implemented.

Present Study

Selection of the subjects. A random sample of thirty ortho-

pedically handicapped subjects between the ages of seven and ten years was drawn from all available children in the Glenrose School Hospital and the Red Cross Hospital. Some disabilities the children had were spina bifida, rheumatoid arthritis, bilateral congenital dislocation of the hips, amputations, and broken bones.

A random sample of seventeen normal subjects between the ages of seven and ten years was drawn from all available subjects in an elementary school in the Edmonton Public School System. The groups could only be compared according to sex and age because there was not enough information available on other variables. The age and sex distribution of the subjects is reported in Table 1.

TABLE 1
DISTRIBUTION OF ORTHOPEDICALLY HANDICAPPED SUBJECTS
AND NORMAL SUBJECTS BY AGE AND BY SEX

Age range in years	Sex	Orth. Hand.	Normal
6.6 - 7.5	M	3	1
	F	2	1
7.6 - 8.5	M	4	2
	F	1	2
8.6 - 9.5	M	5	2
	F	5	4
9.6 - 10.5	M	6	4
	F	4	1
		30	17

The interview. The interviews were conducted in an assigned space, usually the counsellor's office. Wherever this was not possible, an alternate space was assigned, such as the library.

At the beginning of each interview, an attempt was made to have the subject become briefly acquainted with the interviewer by letting each child talk about himself. When the interviewer felt that the necessary rapport had been established, she proceeded with the main part of the interview which was taped.

The actual information given to each subject before the interview began is presented in Appendix A. There was a need to be as natural and flexible as possible with each subject and yet secure objective and quantitative data.

The Instrument. An instrument to measure self perception of young children was developed especially for this study, because the researcher was unable to locate an instrument suitable for this age group.

Jersild (1952) has done considerable work in determining categories about the self with which the individual is concerned. He made 1058 boys and girls from the fourth, fifth, and sixth grades each write two compositions, "What I Like About Myself" and "What I Dislike About Myself". From these compositions, categories about the self were developed. Then several persons independently categorized portions of the data with agreement of 90 per cent or more. Final tabulation yielded percentages of responses about certain items (see

Appendixes B and C).

The present investigator selected ten of Jersild's most frequently mentioned categories. The categories were:

1. Physical characteristics
2. Clothing, grooming and make-up
3. Health and physical condition
4. Home and family relationships
5. Recreation, sports, games, hobbies
6. Ability to play
7. School, school work, and attitudes toward school
8. Special talents
9. My self
10. Social attitudes

An attempt was made to devise items within each category which could be understood by children ranging in age from 7 to 10 years (see Appendixes D and E).

The responses to each item were evaluated on a five-point rating scale. The strongest affirmative response was given a value of 1; a neutral "I don't know" response was given a value of 3; and the strongest negative response was given a value of 5.

The judges. Two male judges, who had completed counsellor training and were employed as counsellors in a large public school system, independently rated each interview on a five-point rating scale.

Limitations of the Study

Information on some variables such as I.Q. score, parental occupation, order in the family, welfare assistance, and length of institutionalization of the child, was unavailable or incomplete. Therefore, the children could be compared on the dimension of orthopedic - non-orthopedic handicap, and on the variables of sex and age.

Further, the number of subjects was limited due to the definition of orthopedic handicap. Some children who were orthopedically handicapped also had other disabilities, such as central nervous system disorders, speech, auditory, and emotional handicaps, and were thus disqualified as subjects for the present investigation.

Studies related to the present study are reviewed in Chapter II.

CHAPTER II

SOME RELATED LITERATURE

Individuals have complex personal characteristics, therefore, it is difficult to measure self perception scientifically. However, various attempts have been made. Some of the results of existing studies follow. Because there is a paucity of research done with young orthopedically handicapped children, the research reviewed below is somewhat tangential to the present study.

Attitudes Toward the Orthopedically Handicapped

Jones and Sisk (1967) examined perception of normal children two to six years of age toward orthopedically handicapped children. Four was found to be the age at which perceptions of the limitations by orthopedic disability first appeared with consistency. From this it could be concluded that exceptionality is observed at an early age. Yarrow (1960) concluded from his studies, that, "The weight of evidence points to the child as a very sensitive perceiver at a very early age [p. 648]." Although children observed a difference in other children, the handicapped subjects in the study did not consider themselves inferior due to their physical limitations.

Reactions to the physically handicapped vary. Kershaw (1961) holds that, "The general social attitude toward physical defect or deformity varies as widely as do physical disabilities

themselves (p. 15)." He states that children are realists and accept each other as they are.

Self-acceptance may be temporary, according to Richardson, Goodman, Hastorf, and Dornbusch (1961), who report findings with normal ten and eleven year olds. Functional impairment is the least liked disability. Girls more than boys emphasized social handicaps. Earlier maturation for the girls may in part explain the social aspect as being important.

Newfield (1964) employed a set of five pictures of varying degrees of physical disability (used in the study of Richardson et al) and a social desirability scale. The male subjects in Newfield's study, aged eight to sixteen years, differed in their ranking behavior from Richardson's earlier samples. The most significant difference was found in regard to facial disfigurement, which ranked second rather than fifth in the Richardson study. Those with higher sociability scores ranked the physical disabilities in greater accordance with the group norm.

Jabin (1965) reported that adolescents reject the disabled person to the degree to which their own self-concept is threatened and insecure. The intensity of rejection relates to the degree of felt threat and the degree of alienation from interpersonal relationships. More alienated persons express more hostility and repulsion, but also they harbor attitudes of pity toward the physically handicapped.

Genshow and Maglione (1965) found that students

familiar with physically disabled had a more positive attitude toward the disabled than a group less familiar with the disabled.

Barker, Wright, Meyerson, and Gonick, (1953), followed by Chesler (1965), studied public attitudes toward the physically disabled. The first investigators concluded that, although public verbalized attitudes toward the disabled are usually mildly favourable, a sizable minority openly expressed negative attitudes. Further, indirect evidence suggests that deeper, un verbalized attitudes are frequently more hostile.

Chesler found that for some purposes the physically disabled can be conceptualized as a minority group subject to many of the same attitudinal and behavioral predispositions as are ethnic minorities. Prejudice is expressed toward a variety of outgroups and is not narrowly focused on a specific minority group. He concluded that individuals who expressed ethnocentrism toward one specific minority group, or on one intergroup dimension, expressed similar attitudes toward other groups and dimensions. Moreover, individuals who manifested high ethnocentrism, or high rejection of outgroups, also expressed rejection of the physically disabled.

It could be said of the studies cited above that adults are favorably inclined toward physically disabled children, but they are less favorably inclined toward physically disabled adults.

Attitudes Toward the Self

Adolescent reactions to obviousness and severity of a

physical disability were examined by Smits (1964). Severely disabled adolescents have significantly lower self-concept scores than mildly disabled adolescents; severely disabled females show the most significant and negative effects of the physical disability; and physically disabled adolescents rate lower on a sociometric scale than physically normal adolescents. Some of these self-perceived inferiorities might have been curbed if they had been detected early enough by professional people.

To support Smits' study with adolescents, Phillips (1963) and Perkins (1958) found that older non-handicapped children had better self perceptions with greater stability and consistency than younger non-handicapped children. Perhaps the responses of the third, fourth and sixth grade children in Phillips' study support a concept that self-analysis is not characteristic of young children.

Perkins concluded that the self concept and the ideal self of children become increasingly and significantly congruent through time. The ideal self in Perkins' study was defined as what the individual would like to be as opposed to what he is. Self congruency for girls is significantly higher than for boys. There is little or no relationship between changes in children's self congruency and changes in their school achievement, or changes in their acceptance by peers.

Comparison of Physically Handicapped and Non-Physically Handicapped

Richardson, Goodman, Hastorf, and Dornbusch, (1964)

studied underprivileged children, nine to eleven years of age, with, and without, physical handicaps. Each child was interviewed and the interview was taped. Differences in self-description between children with and without a handicap reflected the functional restrictions on physical activity and the physical impact of the handicap. The strong emphasis on restrictions of physical handicaps was probably due to the setting of a summer camp.

Wysocki and Whitney (1965) attempted to determine the self image among crippled and non-crippled children with the use of the Draw-A-Person Test. They concluded that crippled children tend to express more aggression in their drawings. The intensity of aggression differed according to the area of insult which was indicated pictorially in some way. Children with congenital dislocated hips had fewer aggressive responses than all other crippled children.

Parental attitudes

Several studies have been conducted to measure the attitudes of parents toward the physically disabled. Dow (1966) concluded that there is an optimistic attitude toward the disability, combined with a general depreciation of physique. There was no distinction by social class to the reaction to the disability, nor in emphasis attached to the physique. It appeared that the devaluation of the physique facilitates optimistic attitudes toward the disability.

In an earlier study Dow (1965) observed that the majority of parents and physically impaired children were

generally quite well informed and generally quite optimistic about problems arising from handicaps. On the behavioral level, however, some families were able to cope more effectively than others; larger families managed a more balanced adjustment than smaller families. Most families appeared to attach little significance to physique and seemed to facilitate optimism in the face of the disability.

Cook (1963), Hoek (1962), and Gambrill (1963) generally agreed with Dow's findings. An optimistic attitude toward the handicap by the mother is very important emotionally to the child and the mother.

Spock and Lerrigo (1965) assert that parental attitudes are very important. Parents must supply love, understanding, security, honesty, trust, confidence, encouragement, realism, and arm children with coping techniques.

Other Studies

A study by Litman (1962) examined some variables which were relevant to the present writer. He developed scales to measure self-concept and family integration of orthopedically handicapped subjects fourteen years and older. While such factors as the individual's self-concern, and attitudinal organization and physical participation were found to be significantly related to rehabilitation response, there was little evidence that age, degree of family solidarity, ordinal position, or predisability personality and behavior influence therapeutic performance. Physical rehabilitation, however, was more effective when there was high social participation

and a prior history of physical activity.

Randall (1961) suggested to the White House Conference that earlier diagnosis of the problem of the disabled child; counseling for the parents; integration of the child into regular school community; and placement of the child in a regular school community which is designed to meet specific needs were important considerations.

Wylie (1961) has suggested that children's self concepts are similar to the view of themselves which they attribute to their parents and that a child's self-regard is associated with the parents' reported level of regard for him. The literature furnishes some evidence to suggest that children see the like-sex parent's self concept as being somewhat more like their own self concept, as contrasted to the opposite sex parent's self concept.

From the research it seems that there is not a consensus of findings regarding the self concept of orthopedically handicapped children. Children in the elementary grades are not apparently self-analytical.

The results of the questionnaire are reported in Chapter III.

CHAPTER III

PRESENTATION OF THE DATA

Following administration of the questionnaire to the orthopedically handicapped children and to the normal children, two judges evaluated the tape-recorded responses of the subjects. Each response to the fifty-three items was rated on a five-point scale. When all of the results from the questionnaires were tabulated, the results were then statistically analyzed. Evaluation techniques adopted were the Mann Whitney U test and the t-test.

The statistical results derived from the data, as they apply to the five hypothesis for the present study, are presented below:

First Hypothesis. According to the first hypothesis, the self perception of the orthopedically handicapped child is less positive than the self perception of the normal child.

Of the fifty-three items on the self-perception questionnaire (see Appendix D), twenty-one items showed statistically significant differences between the orthopedically handicapped group and the normal group at the .05 level (see Appendix F). Six items showed statistically significant differences between the orthopedically handicapped group and the normal group at the .01 level (see Appendix F).

The items which differentiated at statistically significant levels between the groups mentioned above are presented in Table 2.

TABLE 2
ITEMS WHICH DIFFERENTIATED AT STATISTICALLY SIGNIFICANT
LEVELS BETWEEN ORTHOPEDICALLY HANDICAPPED
CHILDREN AND NORMAL CHILDREN

Item	Means		<u>t</u> -ratio
	Orth. Hand.	Normal	
2. Do you have poor skin?	3.87	3.41	1.894*
3. Are you as well developed as most people?	3.00	2.41	2.090*
8. Do you feel well?	1.50	1.85	-2.049*
16. Do you think you are interested in fewer things than your friends?	2.53	3.32	-2.378*
18. Can you move as fast as you like when you are playing games?	2.60	1.85	2.570**
20. Are you better than other children in your class?	2.72	3.50	-2.814**
21. Do you know a lot of words?	1.87	1.53	1.923*
22. Are you slow in arithmetic?	3.22	3.74	-1.773*
27. Do you like to work in a group with others in school?	1.72	2.35	-2.494**
28. Do you remember what you learn in school?	2.32	1.59	3.336**
32. Can you laugh at yourself?	2.58	2.00	1.908*
36. Do you give up easily?	3.55	4.06	-1.890*
38. Do you feel silly when you've done something you did not expect?	2.57	2.00	1.961*
39. Do you think bad things?	3.65	3.47	0.597*
40. Have you ever been sad?	2.10	1.50	2.557**

Table 2 (Cont'd)

Item	Means		<u>t</u> -ratio
	Orth. Hand.	Normal	
41. Have you ever argued with anyone?	2.70	2.09	2.008*
42. Do you ever day dream?	3.18	2.47	2.233*
44. Do you like excitement?	1.78	1.44	1.846*
45. Is it easy to hurt your feelings?	3.33	4.03	-2.329*
49. Do you find it difficult to make new friends?	2.82	3.44	-1.986*
52. Do you ask other people for help?	2.18	2.91	-2.513**

* $P < .05$ ** $P < .01$

Of the ten categories on the self perception questionnaire (see Appendix G), two categories showed statistically significant differences between the orthopedically handicapped group and the normal group at the .05 level (see Appendix G).

The categories which differentiated at statistically significant levels between orthopedically handicapped and the normal children are presented in Table 3.

TABLE 3

CATEGORIES WHICH DIFFERENTIATED AT STATISTICALLY
SIGNIFICANT LEVELS BETWEEN ORTHOPEDICALLY
HANDICAPPED CHILDREN AND NORMAL CHILDREN

Category of Items	Means		t-ratio
	Orth. Hand.	Normal	
5. Recreation, sports games, hobbies (enjoyment of)	4.00	4.84	-2.512**
10. Social attitudes	16.20	18.15	-2.251*

* $P < .05$

** $P < .01$

Because the sample size was small, a non-parametric test, the Mann Whitney U test (Siegler, 1956, pp. 117-119), was used to analyze data collected to test the remaining hypotheses.

Second Hypothesis. According to the second hypothesis, the self perception of the female orthopedically handicapped child is less positive than the self perception of the female normal child.

A summary of the comparisons appears in Table 4.

Third Hypothesis. According to the third hypothesis, the self perception of the female orthopedically handicapped child is significantly different from the self perception of the female normal child, when matched according to age groups.

A summary of the comparisons appears in Table 5.

TABLE 4
COMPARISON OF U SCORES OF FEMALE ORTHOPEDICALLY
HANDICAPPED CHILDREN AND FEMALE NORMAL CHILDREN

Category of Items	<u>U</u> Scores
1. Physical characteristics	46.0
2. Clothing, grooming, and make up	36.0
3. Health and physical condition	35.5
4. Home and family relationships	37.5
5. Recreation, sports, games, hobbies (enjoyment of)	34.5
6. Ability to play	45.5
7. School, School work, attitudes toward school	22.5
8. Special talents	40.0
9. My self	36.0
10. Social attitudes	21.0*

* $P < .025$

TABLE 5
COMPARISON OF U SCORES OF FEMALE ORTHOPEDICALLY HANDICAPPED
CHILDREN AND FEMALE NORMAL CHILDREN BY AGE GROUPS

Category of Items	Nine year olds		Ten year olds	
	<u>U</u> Score	P	<u>U</u> Score	P
1. Physical characteristics	7.0	.278	1.0	.400
2. Clothing, grooming, and make-up	9.5	.511	0.5	.300
3. Health and physical condition	6.0	.206	1.0	.400
4. Home and family relationships	8.0	.365	1.0	.400
5. Recreation, sports, games, hobbies (enjoyment of)	7.0	.278	0.5	.300
6. Ability to play	9.0	.452	0.0	.200
7. School, school work, attitude toward school	2.0	.032*	0.0	.200
8. Special talents	4.0	.095	1.0	.400
9. My self	7.0	.298	0.0	.200
10. Social attitudes	2.0	.008*	0.5	.300

* $P < .05$

Fourth hypothesis. According to the fourth hypothesis, the self perception of the male orthopedically handicapped child is less positive than the self perception of the male normal child.

A summary of the comparisons appears in Table 6.

TABLE 6
COMPARISON OF U SCORES OF MALE ORTHOPEDICALLY
HANDICAPPED CHILDREN AND MALE NORMAL CHILDREN

Category of Items	<u>U</u> Scores
1. Physical characteristics	42.5*
2. Clothing, grooming, and make-up	99.5
3. Health and physical condition	75.0
4. Home and family relationships	75.0
5. Recreation, sports, games, hobbies (enjoyment of)	48.0*
6. Ability to play	70.5*
7. School, school work, attitudes toward school	71.0
8. Special talents	68.0
9. My self	77.0
10. Social attitudes	69.5

* $P < .05$

Fifth hypothesis. According to the fifth hypothesis, the self perception of the male orthopedically handicapped child is significantly different from the self perception of the male normal child, when matched according to age groups.

A summary of the comparisons appears in Table 7.

A discussion of the results appears in Chapter IV.

TABLE 7
COMPARISON OF U SCORES OF MALE ORTHOPEDICALLY
HANDICAPPED CHILDREN AND MALE NORMAL
CHILDREN BY AGE GROUPS

Category of Items	7 yrs.		8 yrs.		9 yrs.		10 yrs.	
	<u>U</u>	P	<u>U</u>	P	<u>U</u>	P	<u>U</u>	P
1. Physical characteristics	0	.250	1.5	.200	3.0	.286	4.0	.057
2. Clothing, grooming and make up	1.0	.500	1.5	.200	1.0	.095	8.0	.238
3. Health, physical condition	1.0	.500	2.0	.267	3.0	.286	10.5	.426
4. Home and family relationships	0.5	.375	1.5	.200	5.0	.571	11.0	.457
5. Recreations, sports, games, hobbies (enjoyment of)	1.5	.625	2.5	.334	3.0	.286	8.5	.278
6. Ability to play	1.0	.500	3.5	.467	4.0	.429	9.5	.345
7. School, school work, attitudes toward school	1.0	.500	1.5	.200	3.5	.333	12.0	.545
8. Special talents	0.5	.375	3.5	.467	4.0	.429	9.0	.305
9. My self	1.0	.500	4.0	.600	4.0	.429	1.0	.010*
10. Social attitudes	0	.250	2.5	.334	4.5	.476	11.0	.457

* $P < .05$

CHAPTER IV

INTERPRETATION OF DATA

Differences between Orthopedically Handicapped Children and Normal Children

Several items and two categories of items from the questionnaire produced statistically significant differences at the .05 level between the orthopedically handicapped and the non-orthopedically handicapped children.

The following items which produced the differences are discussed in order of Table 2, Chapter 3, pages 20 & 21. Skin condition. The orthopedically handicapped children were significantly more certain that their skin was good, as they looked at and felt their hands. The normal children were somewhat less certain about their skin condition. Many normal children had rough, chapped hands with hangnails, possibly because it was winter when the children were interviewed.

Physical development. The orthopedically handicapped children were significantly less certain that their physical development was as good as that of most other people. In fact, the majority did not know whether their physical development was better or worse than that of others. They may not have known with whom to compare themselves - children like themselves or non-orthopedically handicapped children. The normal children, although more affirmative about their physical development, did not uniformly agree that they were better than most

people. Perhaps young children do not give much thought to their body size, shape, and parts relative to others.

Health. The orthopedically handicapped group saw themselves as being in good health. Possibly with the medical facilities available and the individual attention each child receives in a school hospital, the child feels confident he is getting the best care possible and thus is in the best of health. The normal group were not sure they were in good health. Perhaps the only time some of these children can obtain health services is when the school nurse is in the school.

Interests. Item sixteen, which presents the question, "Do you think you are interested in fewer things than your friends?" may have been too difficult for the children to really think through because there were two comparisons. The significant difference suggests that the normal group does not have as many interests as the orthopedically handicapped group. In the school hospitals the extracurricular programs are diversified; the rehabilitation programs, such as swimming, can be developed as an interest. The non-handicapped children did mention that they would like to develop interests such as swimming, collecting items, or making models, however, each interest was expensive, or cost money, and they just did not have the money.

Many orthopedically handicapped children enjoyed reading for fun, however, the normal children did not mention reading. The fact that the normal children had limited access to the library in the regular school might account for the

disinterest in reading.

Mobility. The orthopedically handicapped group were less certain than the normal group about their ability to move as fast as they would like when playing games. In fact, by definition the orthopedically handicapped children are limited in locomotion. The non-handicapped children may have played in team sports where agility was required so they thought they had good movement. Both groups of children enjoyed games.

School and school work. Five out of nine items pertaining to school differentiated at a statistically significant level. Only two of the five were more positive for the normal group. The normal children think they know a lot of words and that they can remember what they learn in school, whereas the orthopedically handicapped children think they can pay attention in school, can learn arithmetic, and enjoy working in groups in school. Thus, the school findings were inconclusive.

The self. The children from both groups gave colorful illustrations with their responses to questions in the category about the self. It appears that the normal children could laugh at themselves more readily than could the orthopedically handicapped children. In a similar vein, the normal children felt that their feelings could not be hurt easily. There is a possibility that unsettled home conditions of the normal children in the sample made them more "care-free" or more readily adaptable toward reactions of

others to them. In fact, they may not have the qualities they admitted to have.

Tenacity. Normal children do not think that they give up easily. Some examples they gave were of trying to do better work in school; of trying to win the next game; and of taking the strap without crying. It seems that the normal children were less likely to give up than the orthopedically handicapped children in situations requiring tenacity.

Embarrassment. Normal children were inclined to feel silly when they had done something they did not expect, such as coming to school late. Orthopedically handicapped children did not know if they had felt silly for an unexpected action.

Sadness. The children from both groups have experienced sadness at some time or another, however, the normal children experienced the feeling more often. Usually, they said, the sadness arose from sibling treatment and, secondly, from self treatment. The normal children recalled instances of being sad when a little brother or sister was hurt.

The investigator found this to be an unexpected result. It would have been expected that the physically handicapped children would have been more sad. An exceptional case was that of a young boy with spina bifida who actually cried when he told how sad he had been that his mother could not be with him on his birthday.

Argument. The normal children admitted to having argued about all kinds of things. Sometimes the arguments took place over an outcome of an activity, such as a win or loss

in hockey, but usually the arguments were with their parents or other members in the family. Basically they seem to get along with their families as there were no significant differences in the family relations category on the instrument. The arguments occurred about participation in events, such as swimming or horseback riding. The orthopedically handicapped children neither admitted nor denied having had arguments. Perhaps the school hospital routine does not permit differences in opinion by the children.

Daydreaming. Neither group of children daydreams very much, however, the normal children do daydream significantly more than the orthopedically handicapped children. Among those things normal children daydreamed about were ownership of material items, particularly horses.

Excitement. Perhaps the normal children have more occasions for excitement because they were very affirmative about enjoyment of excitement. The orthopedically handicapped children enjoyed excitement, too, but they did not offer any specific illustrations and they were significantly less enthusiastic than the normal group.

Friendship. The normal group do not find it difficult to make new friends. Possibly, this fact can best be understood in terms of the high mobility rate of the district from which these children come. Since neighbors change quickly, it is necessary to make friends rapidly. Of course, the children in the school hospital have limited opportunities to meet new people in their segregated setting, therefore, making

friends may not loom as a problem.

Assistance. The normal children were less likely to ask others, such as teachers, parents, or friends, for help. Although the orthopedically handicapped children are more dependent upon others than the non-orthopedically handicapped children, they did not think they were too dependent when they asked others for help.

In summary, the differences in self perception between orthopedically handicapped children and normal children on single items do not seem adequate to support the main hypothesis that orthopedically handicapped children have a less positive self perception than the normal children.

Differences Between Female Orthopedically Handicapped Children and Female Normal Children

Social attitudes. One out of ten categories of items differentiated at a statistically significant level between orthopedically handicapped females and normal females. The category was social attitudes. The orthopedically handicapped females have a less positive self perception than the normal females on the social attitudes dimension of the instrument. Perhaps statements by Meyerson offer explanations to this result. Meyerson (1963) says that variations in physique, with or without ability limitations, may lead to attempts at social emulation and a desire for social approval. According to him social expectations which have the force of standards will influence behavior. A person who has a socially approved

physique will be treated differently and will be expected to behave differently than persons whose physiques deviate from the social ideal. Obviously the self image of the person will also be affected. Thus, the self is created by social interaction with others. No person can develop a wholesome personality if he encounters derogatory attitudes toward physical deviation.

Differences Between Female Orthopedically Handicapped Children and Female Normal Children Matched According to Age Groups

There were not enough female subjects in the seven year old and eight year old groups to conduct any tests of significance. Because these children were so willing to co-operate in the present study, it would be useful to study them further, if more subjects at these age levels could be obtained.

The responses of the nine year old orthopedically handicapped girls produced significantly different self perceptions when compared with those given by the nine year old normal girls in two categories of items: school and social attitudes. The orthopedically handicapped females were less positive about their self perception than the normal females in respect of these categories.

School and school work. The normal girls thought they were progressing well in school, although the researcher had no access to academic records to check their statements. The

orthopedically handicapped girls thought they could do better than they were doing. Whether this attitude of the handicapped girls reflected self motivation or teacher suggestion was unknown.

It is known that children in an institution, such as a school hospital, are educationally deprived because there are so many interferences in their academic program. Perhaps the orthopedically handicapped girls feel they are missing some of the program. Children admitted to the Glenrose school hospital take placement examinations. No mentally retarded child is admitted.

Social attitudes. As girls mature, the way in which they impress others becomes more important. One possible explanation of this finding is that normal girls have the opportunity to make more contacts and possibly see themselves as being socially acceptable.

There were no significant differences in self perception between ten year old orthopedically handicapped girls and non-orthopedically handicapped girls.

Differences between Male Orthopedically Handicapped Children and Male Normal Children

The responses from the male children of both groups produced significantly different self perception scores in two categories of items: physical appearance and enjoyment of recreation. Thus, the male orthopedically handicapped children appear to have a less positive self perception than

the male normal children in two categories on the instrument.

Physical appearance. Meyerson (1963) comments that there are studies which show a positive correlation between certain aspects of physique and certain kinds of behavior. If this observation is valid, one cannot help wondering if the sports coverage in newspapers, in magazines, and on television affects the self image of male orthopedically handicapped children. Each athlete requires a healthy, strong body for competition. The orthopedically handicapped boys did emphasize that they were really good swimmers, possibly due to the fact that swimming is part of the rehabilitation program.

The normal boys possibly practice the skills required of an athlete so they see themselves as having good physical condition. Some of them may even qualify for team sports, which usually require the best physically prepared boys.

Enjoyment of recreation. Not all orthopedically handicapped boys may want to participate in all forms of sports, but those who might want to feel left out when they cannot participate. There are some non-handicapped boys who might not have a desire to participate in sports. It appears that a majority of boys like to participate in sports and games which would result in orthopedically handicapped boys wanting to participate, even though they are unable to do so.

Differences Between Male Orthopedically Handicapped Children and Male Normal Children Matched According to Age Groups

There were no statistically significant differences

between the boys in age groups seven, eight, or nine years, however, there was one category of items which differentiated between the ten year old boys in the two groups. The orthopedically handicapped boys have a less positive self perception in the category of the self than the normal boys.

The self. It appeared that the orthopedically handicapped boys considered each question carefully, whereas some of the normal boys may have pretended to be what they were not as they answered the questions.

Possibly overt differences in appearance, restrictions of the handicaps, and the routines of the institution are factors which make the orthopedically handicapped boys more aware of self.

Items Which Produced no Significant Differences Between Orthopedically Handicapped Children and Normal Children

During the course of the interviewing, the researcher felt it was possible that there would not be any differences between the responses of the two groups in many of the items. The analysis supports the belief.

Failure to differentiate between the groups may be attributable to two factors. Firstly, the orthopedic handicap itself may not be the single reason for the kind of self perception the child has; the self perception could be an effect of the institution, such as a school hospital. Secondly, the orthopedically handicapped children were selected from two school hospitals, so the sample size was small.

On the basis of his experience and his research,
Jersild (1952) has asked if:

. . . the accounts which the young people gave of themselves represent a completely true or realistic picture. What each young child said or wrote may be more or less true, more or less candid, more or less realistic, more or less a kind of symbolism which actually represents or definitely obscures or conceals features of his 'real' self or his idealized image of himself (p. 23).

If Jersild is constrained to make the above-quoted remark, then the present researcher has reason to believe her subjects may have projected an "idealized" self which could account for the few differences in self perception. There is always a problem with children trying to impress a researcher (Yarrow, 1960).

CHAPTER V

SUMMARY AND IMPLICATIONS

Review of the Study

The present study was designed to test the hypothesis that the self perception of orthopedically handicapped children is less positive than the self perception of normal children. Further tests of the hypothesis were made between the groups on variables of sex and age.

A questionnaire to measure self perception was prepared by the researcher for use with young children seven to ten years of age. Each child was interviewed by the present writer and the interview was taped. Two judges independently rated the responses on a five-point rating scale.

Results of the Study

The findings of the present investigation did not support a statement by Goodenough (1956), that the handicapped child is usually found to be somewhat less well adjusted and less emotionally stable than the normal child. In fact, there were single questionnaire items which revealed statistically significant differences between the orthopedically handicapped children and the normal children in self perception but there were not enough differences from which to draw generalizations.

Wright (1960) has suggested that:

There is no substantial indication that persons

with an impaired physique differ as a group in their general or overall adjustment. Some studies show a somewhat greater number of persons with physical disabilities who have lower adjustment scores than their controls but in most of these cases the differences may well be experimental artifacts (p. 373).

Wright also makes another pertinent point. Even if small differences do exist between the physically handicapped and the non-handicapped groups, it may not be said that most persons with physical disabilities are not well adjusted, any more than it may be said that most physically "normal" persons are well adjusted. Adjustment is between the individual and his environment and cannot be general for the population. Scientific evidence presently available suggests that, on the average persons with physical limitations make about as good a personality adjustment as do the non-handicapped.

Colleagues of Meyerson (1963) have agreed that variations in physique need not necessarily lead to emotional handicaps. Although the present researcher was not studying emotional handicaps, per se, the generalization may be extended to include the effects of physique on self perception.

General Results

Yarrow (1960) in his article "The Measurement of Children's Attitudes and Values" was correct when he said that it is difficult to use children as research subjects. He discussed several techniques for approaching young subjects. The present researcher found that the children in

the study were curious, attentive, and talkative once rapport was established. Only a few subjects expressed concern that the information would be turned over to their teachers. Perhaps the fact that the counselor's office was used for the interviews made a few children suspicious. These children were assured that no one but the researcher would use the information.

The instrument, which was prepared for the present study, was easy to administer to young children as indicated by their willingness to participate. It seemed that it was almost an honor for some children to be chosen for the study, rather than their friends.

The instrument, a questionnaire, structured the interview. The items focused on aspects of the self which the child would have to consider. Although an unstructured interview would require more time with each child, possibly different results would be obtained. The child would have an opportunity to focus on aspects of the self which are intimate.

Meyerson (1963) believes behavior is a function of the person interacting with his environment. Therefore, no one instrument is adequate to measure the interaction of all forces which affect the individual's behavior.

Research Recommendations

Some suggestions for further research follow:

Tests of reliability and validity. Tests of reliability and

validity of the instrument, which was designed to measure self perception for the present study, are required. Although the ideas and techniques for the questionnaire were derived from standardized test forms and modified to fit the study, it does not follow that the instrument has the qualities of reliability and validity desired for measurement of self perception.

Further to the test of reliability, an acceptable technique could be the test-retest with a time lapse. For the orthopedically handicapped children this might be a problem as they are admitted and discharged from the school hospital at any time during the academic year.

Interviewer sex. Would there be significantly different results in responses to the self perception questionnaire if a male interviewer administered the instrument? Since most of the children have been largely exposed to females and the present researcher was no exception, there could be different responses.

Setting - institutionalized and non-institutionalized. Because the orthopedically handicapped children for the present study were selected from school hospitals, it seems reasonable to assume that experience in the school hospital would have an affect on the responses of the children. Would orthopedically handicapped children in a normal school setting react similarly to the questionnaire? Would non-handicapped children in a classroom with physically handicapped children have different self perceptions?

Goodenough (1956) has said:

Whenever the degree of crippling and the personal-social adjustment of the individual child do not preclude it, these children should receive their education in regular classes. In general, he should be given every encouragement to share the work and play of normal children whenever it is not clearly impossible for him to do so (p. 25).

Socio-economic factors. The extent of the possible influence of socio-economic factors is not known, and no studies dealing with this problem could be found. A consideration of these factors, involving, for instance, a comparison between groups of handicapped from various levels of the socio-economic scale, might produce interesting results.

Parental reaction. Not all of the subjects in the study had parents, or were living with their parents. Some of the orthopedically handicapped subjects were resident students (that is, lived in the hospital) whereas others were day students (that is, lived in a home and were bused in daily). Some of the students living in homes were with foster parents as they may have come from another city or town or province, or they may have been foster children without any parents. If a study were to be conducted using the reactions of the parents to the same questionnaire administered to the children, this variable would have to be considered.

Block and Turula (1963) believe that parental reaction to an instrument used by their children should be measured.

The experiential matrix of the child obviously is of great influence upon the form of personality organization he evolves. And it is the child's parents who dominate, wittingly or not, the way his learnings are shaped. It is for this reason that research interest has been turning to the study of parental

influence upon personality formation and the role of identification in determining the mode of adjustment an individual establishes (p. 945).

Yamprey (1962) claims every defect, whether physical or functional, major or minor, has an effect on the family nucleus, which has a further effect on the child's development. The emotional disturbance of the child is motivated by frustration, generating hostility and guilt. These emotions distort communications and learning and threaten family happiness. Correction of the problem must deal with the entire disturbed constellation. Since no significant differences were found between the orthopedically handicapped children and the normal children in the present study, it might be concluded that the parents of these children do not need counselling. Ross (1964), however, contends that parents of exceptional children ought to be counselled as well as their children.

Additional variables. Additional variables which could be considered in a similar study could be intelligence, duration of handicap, cause of the handicap, severity of the handicap, and onset of the handicap.

Other techniques. Other feasible procedures for obtaining information from young children could involve the use of written compositions - such as were used by Jersild (1952), or for those children who may experience difficulty in writing - because of age or educational level - the use of a tape recorder.

Closing Remarks

The results of the present study appear consistent with the following generalizations derived from somatopsychological research by Wright (1960):

1. There is no substantial indication that persons with an impaired physique differ as a group in their general or overall adjustment.
2. There is no clear evidence of an association between types of physical disability and particular personality characteristics.
3. Although consistent group trends with respect to personality and adjustment have not been found, studies of individuals convincingly indicate that physical disability has a profound effect on the person's life.
4. What evidence there is on attitudes of persons toward their own disabilities suggests that these attitudes vary widely, have little relation to the degree of disability in massed data, are related to personality characteristics existing prior to the disability and are influenced in the direction of acceptance via change in the person's value system (pp. 374-377).

In sum, it seems true that there is no simple one-to-one relationship between physical deviation and the self perception. While it appears reasonable to think that orthopedic handicap must have significance, inferences about the self perception of children based directly on the assumed effects of physical abnormality receive no scientific support from the present investigator.

SELECTED REFERENCES

- Barker, R. G., Wright, B. A., Meyerson, L., and Gonick, M. R. Adjustment to physical handicap and illness: a survey of the social psychology of physique and disability. (Rev. ed.) New York: Social Science Research Council, 1953.
- Briggs, J. W. Glenrose school hospital. A T A Magazine, 1966, 42, 12-18.
- Chesler, M. A. Ethnocentrism and attitudes toward the physically disabled. Journal of Personality and Social Psychology, 1965, 2 (6), 877-882.
- Combs, A. W. and Snygg, D. Individual behavior. New York: Harper, 1959.
- Cook, J. J. Dimensional analysis of child-rearing attitudes of parents of handicapped children. American Journal of Mental Deficiency, 1963, 68, 354-361.
- Dow, T. E., Jr. Social class and reaction to physical disability. Psychological Reports, 1965, 17, 39-62.
- Dow, T. E., Jr. Optimism, physique and social class in reaction to disability. Journal of Health and Human Behavior, 1966, 7, 14-19.
- Gambrill, E. Post hospitalized disabled children. Journal of Health and Human Behavior, 1963, 4, 206-210.
- Genskow, J. K. and Maglione, F. D. Familiarity, dogmatism and reported student attitudes toward the disabled. Journal of Social Psychology, 1965, 67, 329-341.
- Goodenough, F. L. Exceptional children, with the assistance of Lois M. Rynkiewicz. New York: Appleton-Century, 1956.
- Hamilton, K. W. Counseling the handicapped in the rehabilitation process. New York: Ronald Press, 1950.
- Hoek, D. Some problems of mothers of handicapped children. Megamot (trans.), 1962, 12, 146-153.
- Jabin, N. Attitudes toward the physically disabled as related to selected personality variables. Unpublished dissertation, New York University, 1965.

- Jersild, A. In search of self. U of Chicago: Bureau of Teachers' Publications, 1952.
- Jones, R. L. and Sisk, D. A. Early perceptions of orthopedic disability. Exceptional children, 1967, 34, 42-43.
- Kershaw, J. D. Handicapped children. London: William Heinemann, 1961.
- Litman, T. J. The influence of self conception and life orientation factors in the rehabilitation of the orthopedically handicapped. Journal of Health and Human Behavior, 1962, 3, 249-257.
- Meyerson, L. Somatopsychology of physical disability. In Wm. M. Cruickshank (Ed.), Psychology of exceptional children and youth, (2nd. ed.). Englewood Cliffs, N. J.: Prentice Hall, 1963, pp. 1-53.
- Newfield, W. F. The effect of social desirability and birth order on the ranking of physical disabilities. Unpublished manuscript, Columbia University, 1964.
- Perkins, H. V. Factors influencing change in children's self concepts. Child Development, 1958, 29, 221-230.
- Perkins, H. V. Teachers' and peers' perceptions of children's self concepts. Child Development, 1958, 29, 203-220.
- Peter, L. J. Prescriptive teaching. Toronto: McGraw-Hill, 1965.
- Phillips, B. N. Age changes in accuracy of self perceptions. Child Development, 1963, 34, 1041-1046.
- Pitner, R., Eisenson, J. and Stanton, M. The psychology of the physically handicapped. New York: Appleton-Century, 1941.
- Randall, H. B. Disabled pupils and the new decade. Journal of School Health, 1961, 31, 252-261.
- Richardson, S. A., Goodman, N., Hastorf, A. H., and Dornbusch, S. M. Cultural uniformity in reaction to physical disabilities. American Sociological Review, 1961, 26, 241-247.
- Richardson, S. A., Goodman, N., Hastorf, A. H., and Dornbusch, S. M. Effects of physical disability on a child's description of himself. Child Development. 1964, 35, 893-907.

- Siegel, S. Nonparametric statistics for the behavioral sciences. New York: McGraw-Hill, 1956.
- Ross, A. O. The exceptional child in the family. New York: Greene, 1964.
- Smits, S. J. Reactions of self and others to the obviousness and severity of physical disability. Dissertation Abstract, 1964, 25, 1324-1325.
- Spock, B. and Lerrigo, M. O. Caring for your disabled child. New York: Macmillan Co., 1965.
- Wright, B. A. Physical disability - a psychological approach. New York: Harper, 1960.
- Wylie, R. C. The self concept. Lincoln: University of Nebraska Press, 1961.
- Wysocki, B. A. and Whitney, E. Body image of crippled children as seen in Draw-A-Person Test behavior. Perceptual and Motor Skills, 1965, 21, 499-504.
- Yamprey, N. Problem of the defective child. Argent (trans.), 1962, 8, 98-105.
- Yarrow, M. R. The measurement of children's attitudes and values. In Paul H. Mussen, Handbook of research methods in child development, New York: Wiley, 1960.

APPENDIXES

APPENDIX A

INTRODUCTION FOR THE INTERVIEW

APPENDIX A

INTRODUCTION FOR THE INTERVIEW

My name is Mrs. Sorensen. I am from the University of Alberta. I am interested in talking to boys and girls about themselves. You are one of the boys (girls) with whom I am going to talk. So that I do not forget what we say, I have a tape recorder to record our voices. Have you ever heard yourself on a tape recorder? When we finish talking, we can listen to some of the tape, if you like.

Is there anything that you want to ask me or tell me before we begin?

So that no one will know who you are, I am going to give you a number. You are number _____. Now I just know you are a sex age years of age. When I start the machine, do you want to say "I am number _____" and then we will begin the questions?

APPENDIX B

PERCENTAGES OF BOYS AND GIRLS IN THE MAIN POPULATION
WHO MENTIONED VARIOUS CATEGORIES IN REPORTING
"WHAT I LIKE ABOUT MYSELF"

APPENDIX B

PERCENTAGES OF BOYS AND GIRLS IN MAIN POPULATION

WHO MENTIONED VARIOUS CATEGORIES IN REPORTING

"WHAT I LIKE ABOUT MYSELF"

Category	Elementary Grades					
	IV		V		VI	
	B N 220	G 206	B 147	G 142	B 171	G 172
I. Physical Characteristics	15	19	22	30	12	30
II. Clothing and Grooming	16	27	12	26	12	28
III. Health and Physical Soundness	6	2	8	8	7	5
IIIx. Bodily Pleasures	3	3	1	1	1	1
IV. Material Possessions	3	4	3	1	1	2
V. Animals and Pets	4	2	1	1	4	6
VI. Home and Family	18	24	7	13	14	16
VIII. Recreation (Enjoyment of)	15	10	7	4	18	10
IX. Ability in Sports, Play	13	9	20	6	24	9
X. School	21	33	13	17	23	21
XI. Intellectual Abilities	5	3	6	6	8	3
XII. Special Talents	14	11	14	12	16	20
XIII. Just Me, Myself	11	6	7	5	15	9
XIIIx. Personality, Character	23	19	20	13	24	28
XIV. Social Attitudes and Relationships	20	22	22	29	22	38
XV. Religion	4	2	1	0	4	2
XVI. Independence, Self-Help	5	2	3	2	1	2
XVIx. Privacy	1	0	3	1	1	2
XVII. Attitude Toward World	1	0	1	1	1	1
XVIII. No response	2	4	4	3	4	4

Note: Modified Excerpt from Jersild (1952, pp. 144-145).

APPENDIX C

PERCENTAGES OF BOYS AND GIRLS IN MAIN POPULATION
WHO MENTIONED VARIOUS CATEGORIES IN REPORTING
"WHAT I DISLIKE ABOUT MYSELF"

APPENDIX C

PERCENTAGES OF BOYS AND GIRLS IN MAIN POPULATION

WHO MENTIONED VARIOUS CATEGORIES IN REPORTING

"WHAT I DISLIKE ABOUT MYSELF"

Category	Elementary Grades					
	IV		V		VI	
	B N 220	G 206	B 147	G 142	B 171	G 172
I. Physical Characteristics	11	16	17	30	17	41
II. Clothing and Grooming	4	10	7	5	4	9
III. Health and Physical Soundness	2	3	3	4	5	2
IIIx. Bodily Pleasures	4	4	4	1	2	2
IV. Material Possessions	0	0	1	1	1	1
V. Animals and Pets	2	1	0	1	0	1
VI. Home and Family	17	19	9	22	11	21
VIII. Recreation (Enjoyment of)	5	1	1	1	4	2
IX. Ability in Sports, Play	4	4	7	1	10	6
X. School	22	22	18	23	32	27
XI. Intellectual Abilities	1	1	3	2	6	4
XII. Special Talents	9	10	5	4	9	15
XIII. Just Me, Myself	1	2	4	3	5	5
XIIIx. Personality, Character	37	38	37	32	44	48
XIV. Social Attitudes and Relationships	16	14	15	18	15	20
XV. Religion	0	0	3	0	1	0
XVI. Independence, Self-Help	0	0	1	0	1	1
XVIx. Privacy	0	0	0	1	1	1
XVII. Attitude Toward World	0	0	0	0	1	0
XVIII. No Response	10	5	5	3	3	5

Note: Modified Excerpt from Jersild (1952, pp. 146-147).

APPENDIX D

THE INSTRUMENT

APPENDIX D

THE INSTRUMENT

Physical Characteristics

1. Do you think you are really good looking?
2. Do you have poor skin?
3. Are you as well developed as most people?

Clothing, grooming and make-up

4. Do your clothes suit you?
5. Do you like to keep yourself clean and neat?

Health and physical condition

6. Are you more clumsy than other people?
7. Do you talk more slowly than most people?
8. Do you feel well?
9. Do you like to eat?
10. Do you like to sleep?

Home and family relationships

11. Do you like to do things with your family?
12. Do you often go places with your family?
13. Do you think your father likes the things you do?
14. Do your mother and you get along well?
15. Are your parents happy to have you?

Recreation, sports, hobbies (enjoyment of)

16. Do you think you are interested in fewer things than your friends?
17. Do you like to play games?

Ability to play

18. Can you move as fast as you like when you are playing games?
19. Do you know how to swim?

School, school work, and attitudes toward school

20. Are you better than other children in your class?
21. Do you know a lot of words?
22. Are you slow in arithmetic?
23. Do you get along with your teachers?
24. Do you like going to school?
25. Are you unhappy if you don't understand what your teacher is talking about?
26. Do you like to start new work in school?
27. Do you like to work in a group with others in school?
28. Do you remember what you learn in school?

Special talents

29. Do you play a musical instrument?
30. Do you like music?

My self

31. Are you glad you are who you are?
32. Can you laugh at yourself?
33. Can you cry easily when your feelings are hurt?
34. Can you prevent yourself from getting mad?
35. Are you usually really happy?
36. Do you give up easily?
37. Are you honest?
38. Do you feel silly when you've done something you did not expect?
39. Do you think bad things?
40. Have you ever been sad?
41. Have you ever argued with anyone?
42. Do you ever day-dream?
43. Do you think about yourself?
44. Do you like excitement?
45. Is it easy to hurt your feelings?
46. Are you a happy-go-lucky person?
47. Would you like to know how to make yourself better?
48. Do you like to be hurried?

Social attitudes

49. Do you find it difficult to make new friends?
50. Do you think other people talk about you?
51. Do you ever feel lonesome?
52. Do you ask other people for help?
53. Do you like other people who are not like yourself?

APPENDIX E

THE ITEMS IN EACH CATEGORY

APPENDIX E

THE ITEMS IN EACH CATEGORY

Categories	Statements in Each
1. Physical characteristics	1-3
2. Clothing, grooming and make-up	4, 5
3. Health and physical condition	6-10
4. Home and family relationships	11-15
5. Recreation, sports, games, hobbies (enjoyment of)	16, 17
6. Ability to play	18, 19
7. School, school work, attitudes toward school	20-28
8. Special talents	29, 30
9. My self	31-48
10. Social attitudes	49-53

APPENDIX F

SUMMARY OF COMPARISON OF MEANS OF ITEMS ON SELF
PERCEPTION FOR ORTHOPEDICALLY HANDICAPPED
CHILDREN AND FOR NORMAL CHILDREN

APPENDIX F

SUMMARY OF COMPARISON OF MEANS OF ITEMS ON SELF PERCEPTION FOR ORTHOPEDICALLY HANDICAPPED CHILDREN AND FOR NORMAL CHILDREN

Item	Means		t-ratio
	Orth.	Hand. Normal	
1. Do you think you are really good looking?	2.15	2.62	-1.542
2. Do you have poor skin?	3.87	3.41	1.894*
3. Are you as well developed as most people?	3.00	2.41	2.090*
4. Do your clothes suit you?	1.85	1.68	0.907
5. Do you like to keep yourself clean and neat?	1.52	1.74	-1.552
6. Are you more clumsy than other people?	3.70	3.94	-0.951
7. Do you talk more slowly than most people?	3.30	3.12	0.597
8. Do you feel well?	1.50	1.85	-2.049*
9. Do you like to eat?	1.52	1.71	-1.129
10. Do you like to sleep?	1.77	1.94	-0.755
11. Do you like to do things with your family?	1.55	1.68	-0.684
12. Do you often go to places with your family?	1.75	2.00	-1.239
13. Do you think your father likes the things you do?	2.08	1.91	0.785
14. Do your mother and you get along well?	1.67	1.50	1.151
15. Are your parents happy to have you?	1.45	1.59	-1.187
16. Do you think you are interested in fewer things than your friends?	2.53	3.32	-2.378*
17. Do you like to play games?	1.47	1.53	-0.517
18. Can you move as fast as you like when you are playing games?	2.60	1.85	2.570*
19. Do you know how to swim?	3.10	3.32	-0.623
20. Are you better than other children in your class?	2.72	3.50	-2.814*
21. Do you know a lot of words?	1.87	1.53	1.923*
22. Are you slow in arithmetic?	3.22	3.74	-1.773*

Appendix F (Cont'd)

Item	Means		<u>t</u> -ratio
	Orth.	Hand. Normal	
23. Do you get along with your teachers?	1.90	1.59	1.623
24. Do you like going to school?	1.88	1.76	0.540
25. Are you unhappy if you don't understand what your teacher is talking about?	2.80	2.53	0.815
26. Do you like to start new work in school?	1.58	1.82	-1.525
27. Do you like to work in a group with others in school?	1.72	2.35	-2.494*
28. Do you remember what you learn in school?	2.32	1.59	3.336*
29. Do you play a musical instrument?	3.35	3.38	-0.104
30. Do you like music?	1.55	1.65	-0.635
31. Are you glad you are who you are?	1.60	1.76	-0.853
32. Can you laugh at yourself?	2.58	2.00	1.908*
33. Do you cry easily when your feelings are hurt?	3.37	3.26	0.325
34. Can you prevent yourself from getting mad?	2.90	2.59	1.051
35. Are you usually happy?	1.50	1.79	-1.337
36. Do you give up easily?	3.55	4.06	-1.890*
37. Are you honest?	1.87	1.91	-0.229
38. Do you feel silly when you've done something you did not expect?	2.57	2.00	1.961*
39. Do you think bad things?	3.65	3.47	0.597
40. Have you ever been sad?	2.10	1.50	2.557*
41. Have you ever argued with anyone?	2.70	2.09	2.008*
42. Do you ever day-dream?	3.18	2.47	2.233*
43. Do you think about yourself?	1.87	2.24	-1.549
44. Do you like excitement?	1.78	1.44	1.846
45. Is it easy to hurt your feelings?	3.33	4.03	-2.329
46. Are you a happy-go-lucky person?	1.95	2.26	-1.424
47. Would you like to know how to make yourself better?	1.95	2.06	-0.439
48. Do you like to be hurried?	3.85	4.12	-1.014
49. Do you find it difficult to make new friends?	2.82	3.44	-1.986*

Appendix F (Cont'd)

Item	Means		<u>t</u> -ratio
	Orth. Hand.	Normal	
50. Do you think other people talk about you?	2.55	2.44	0.357
51. Do you ever feel lonesome?	2.73	2.97	-0.780
52. Do you ask other people for help?	2.18	2.91	-2.513*
53. Do you like other people who are not like yourself?	2.07	2.27	-0.694

* $P < .05$

APPENDIX G

SUMMARY OF COMPARISON OF MEANS OF CATEGORIES ON SELF
PERCEPTION FOR ORTHOPEDICALLY HANDICAPPED
CHILDREN AND FOR NORMAL CHILDREN

APPENDIX G

SUMMARY OF COMPARISONS OF MEANS OF CATEGORIES ON SELF PERCEPTION FOR ORTHOPEDICALLY HANDICAPPED CHILDREN AND FOR NORMAL CHILDREN

Categories	Means		t-ratio
	Orth.	Hand. Normal	
1. Physical characteristics	9.02	8.44	1.122
2. Clothing, grooming and make-up	3.37	3.41	-0.164
3. Health and physical condition	11.78	12.56	-1.510
4. Home and family relationships	8.50	8.68	-0.305
5. Recreation, sports, games, hobbies (enjoyment of)	4.00	4.84	-2.512*
6. Ability to play	5.70	5.18	1.156
7. School, school work, attitudes toward school	20.00	20.41	-0.481
8. Special talents	4.90	5.03	-0.370
9. My Self	42.45	40.94	0.948
10. Social attitudes	16.20	18.15	-2.251*

* $P < .05$

SUMMARY OF COMPARISONS OF MEANS OF CATEGORIES ON ALL
PERCEPTION FOR ORTHOPEDICALLY HANDICAPPED
CHILDREN AND FOR NORMAL CHILDREN

B29942